

a³
cont interconnect layer, inside wall surface of the via-hole and surface of the interconnect layer integratedly.--

Please rewrite the paragraph at page 6, lines 5-16 as follows:

a⁴
--The basic method for producing the via hole 20 in a semiconductor device 30 of the present invention. comprising, a step of forming a first step via hole (5) in a laminated structure formed by a copper layer (1), an etching-stop layer (2) on the surface side of the copper layer (1), and an insulation layer (3) on the surface side of the etching-stop layer (2), a step whereby the formation of the first step via hole (5) is stopped by the etching-stop layer (2), and a second step via hole (6) is further formed so as to continue from the first step via hole (5), thereby forming the via hole 20, a step whereby the second step via hole (6) extends to the copper layer (1) and the second step via hole (6) is cleaned, and a step, after the above-noted cleaning, whereby a barrier film (7) is formed on the first step via hole (5) and the second step via hole (6) by sputtering.--

Please rewrite the paragraph at page 8, lines 2 1-24 as follows:

a⁵
The substrate 10 is placed in the sputtering chamber in an atmosphere set to a temperature of 250°C. It is preferable that the substrate 10 be kept at 250°C for at least 3 minutes.

In the claims

Please rewrite claim 1 as follows:

a⁶
1. (Amended) A semiconductor device which comprises:

a substrate, on a main surface of which, an interconnect layer made at least of copper is formed along with a predetermined pattern in buried condition in said substrate;